Installation and Operating Guide | Warranty

Model Numbers | C27V36 • C32V36 | Direct View TVs

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RECORD YOUR MODEL NUMBER
(Now, while you can see it)

The model and serial number of your new TV are located on the back of the TV cabinet. For your future convenience, we suggest that your record those numbers here:

MODEL NO._____

SERIAL NO._____

WARNING

RISK OF ELECTRIC SHOCK
DO NOT OPEN

WARNING:

TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING:

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

POWER CORD POLARIZATION:

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION: POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU´AU FOND.

NOTE TO CABLE/TV INSTALLER:

This reminder is provided to call the cable TV system installer’s attention to Article 820-40 of the National Electric Code (U.S.A.). The code provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of the cable entry as practical.

REGULATORY INFORMATION:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

CAUTION: Do not attempt to modify this product in any way without written authorization from Zenith Electronics Corporation. Unauthorized modification could void the user’s authority to operate this product.

The responsible party for this product’s compliance is :

Zenith Electronics Corporation, 2000 Millbrook Drive, Lincolnshire, IL 60069, USA 1-847-941-8000

IMPORTANT SAFETY INSTRUCTIONS

Important safeguards for you and your new product

Your product has been manufactured and tested with your safety in mind. However, improper use can result in potential electrical shock or fire hazards. To avoid defeating the safeguards that have been built into your new product, please read and observe the following safety points when installing and using your new product, and save them for future reference.

Observing the simple precautions discussed in this operating guide can help you get many years of enjoyment and safe operation that are built into your new product.

This product complies with all applicable U.S. Federal safety requirements, and those of the Canadian Standards Association.

1. Read Instructions
All the safety and operating instructions should be read before the product is operated.

2. Follow Instructions
All operating and use instructions should be followed.

3. Retain Instructions
The safety and operating instructions should be retained for future reference.

4. Heed Warnings
All warnings on the product and in the operating instructions should be adhered to.

5. Cleaning
Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

6. Water and Moisture
Do not use this product near water for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.

7. Accessories, Carts, and Stands
Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

8. Transporting Product
A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

9. Attachments
Do not use attachments not recommended by the product manufacturer as they may cause hazards.

10. Ventilation
Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

11. Power Sources
This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

12. Line-Cord Polarization
This product is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

13. Power-Cord Protection
Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

PORTABLE CART WARNING

(Continued on next page)

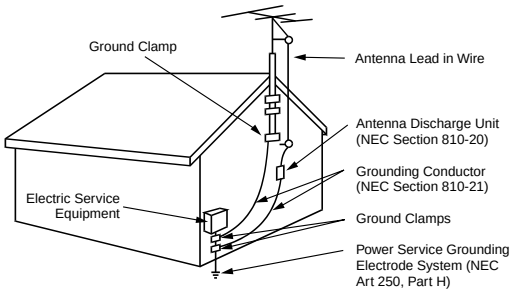
IMPORTANT SAFETY INSTRUCTIONS

(Continued from previous page)

14. Outdoor Antenna Grounding

If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code (U.S.A.), ANSI/ NFPA 70 provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Example of Grounding According to National Electrical Code Instructions


Ground Clamp
Antenna Lead in Wire
Antenna Discharge Unit (NEC Section 810-20)
Grounding Conductor (NEC Section 810-21)
Electric Service Equipment
Ground Clamps
Power Service Grounding Electrode System (NEC Art 250, Part H)

NEC- National Electrical Code

15. Lightning

For added protection for this product (receiver) during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

16. Power Lines

An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

17. Overloading

Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

18. Object and Liquid Entry

Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

19. Servicing

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

20. Damage Requiring Service

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

a. If the power-supply cord or plug is damaged.

b. If liquid has been spilled, or objects have fallen into the product.

c. If the product has been exposed to rain or water.

d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.

e. If the product has been dropped or the cabinet has been damaged.

f. If the product exhibits a distinct change in performance.

21. Replacement Parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

22. Safety Check

Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

23. Wall or Ceiling Mounting

The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

24. Heat

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

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Your Zenith Limited Warranty .....Back cover

Setup Checklist

Step 1

Connect TV and all equipment:
See pages 29-32

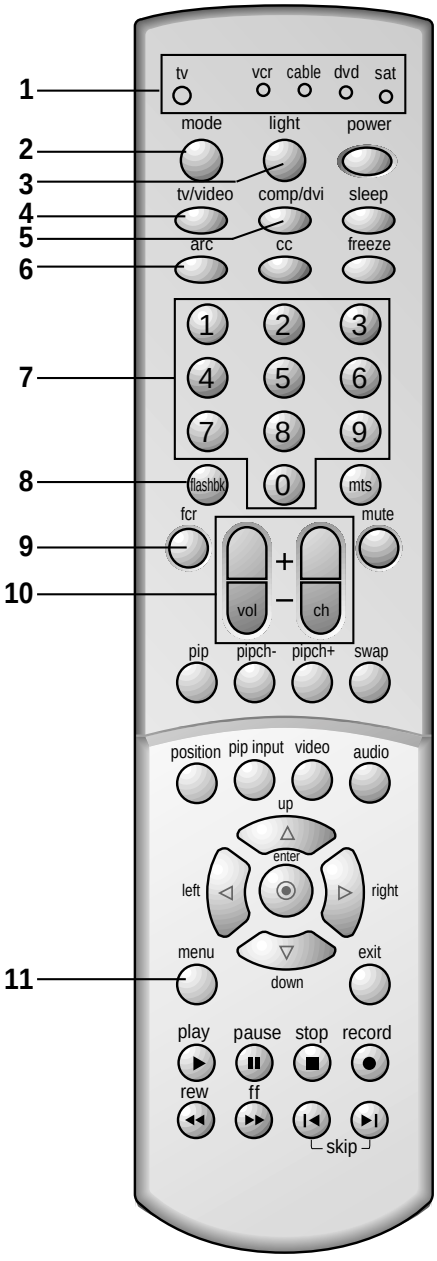
Step 2

Do a channel search:
See pages 10-11

Step 3

Set up the individual features, picture, and sound to your personal preference:
See appropriate pages

Remote Control/Front Control Panel



1. **MODE INDICATOR LIGHTS**
   Show active remote mode every time any button is pressed.

2. **MODE**
   Selects the remote operating mode: TV, VCR, Cable, DVD and Satellite receiver. Select other operating modes, for the remote to control external devices. Note: Some Zenith brand equipment.

3. **LIGHT**
   Illuminates the remote control keys.

4. **TV/VIDEO**
   Selects TV, VIDEO, COMPONENT, or DVI mode.

5. **COMP/DVI**
   Selects COMPONENT or DVI mode.

6. **ARC (Not available in 720p and 1080i)**
   Selects 4:3 or 16:9 picture formats.

7. **NUMBER BUTTONS**
   Direct channel selection.

8. **FLASHBK**
   Returns to the previous channel.

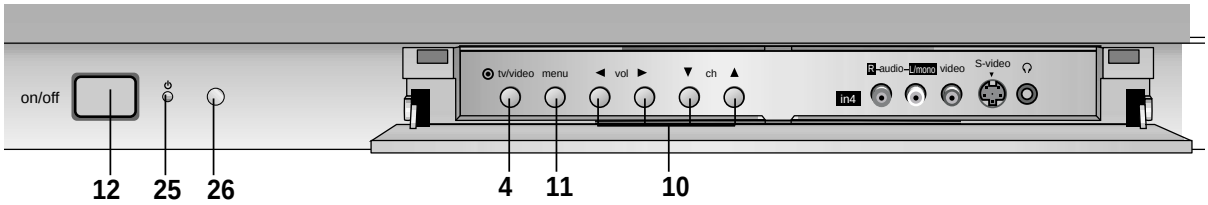
9. **FCR (Favorite Channel Review)**
   Selects favorite channels.
   Refer to **"Favorite channel memory"**.

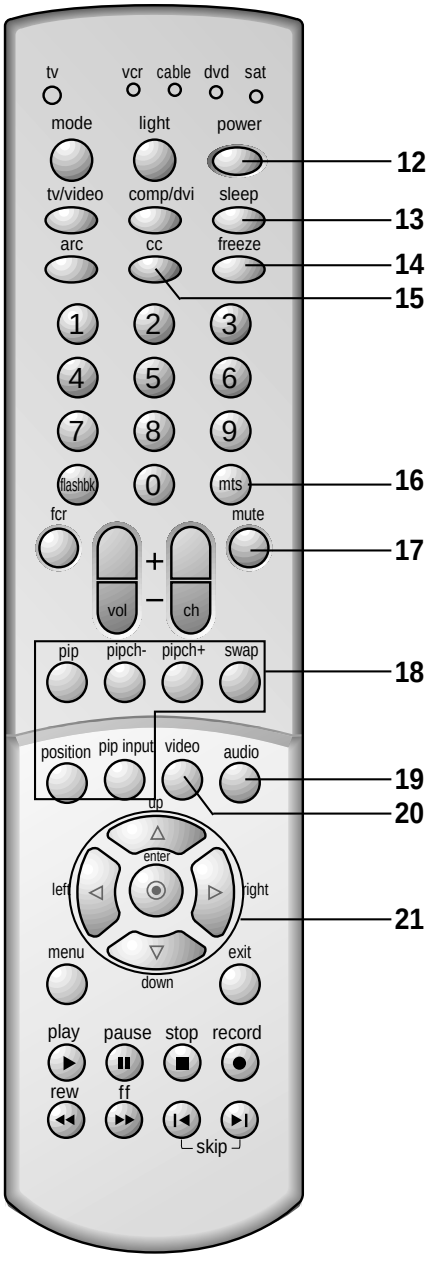
10. **CHANNEL UP/DOWN**
    - Selects the desired channel.
    - Selects the desired menu option when menu is displayed on the screen.

    VOLUME UP/DOWN
    - Increase or decrease sound level.
    - Enters or adjusts the selected menu when menu is displayed on the screen.

11. **MENU**
    Displays on-screen menus.

This is a simplified representation of the front panel.





12. POWER (or ON/OFF)
Refer to **"Turning the TV on/off".**

13. SLEEP
Sets desired sleep time.

14. FREEZE
Freezes still the sub picture in PIP mode.
Freezes the currently-viewed picture.

15. CC
Selects the CAPTIONS: **On**, **EZ Mute**, or **Off**.

16. MTS BUTTON
Selects MTS sound: **Mono**, **Stereo**, or **SAP**.

17. MUTE
Press to mute sound. Press again to restore sound.

18. PIP (Picture-in-Picture)

PIP
Selects the PIP mode, twin picture window, or channel search mode.

PIPCH +/–
Selects the sub picture channel.

SWAP
Switches the main and sub pictures.

POSITION
Moves the sub picture to another corner of the main picture.

PIP INPUT
Selects the input signal for the sub picture.

19. AUDIO (Not available in earphones).
Selects the sound appropriate for the program's character; **Virtual**, **Flat**, **Music**, **Movie**, **Sports** or **User**.

20. VIDEO
Selects factory preset picture settings: **Clear**, **Optimum**, **Soft**, or **User**.

21. ▲/▼/◀/▶/⦿
- Navigates the on-screen menus and adjusts the system settings and preferences.
- Recalls current TV mode (Remote control only).

22. EXIT
Clears all on-screen displays and returns to TV viewing from any menu.

23. DVD/VCR BUTTONS
Control Zenith video cassette recorders.

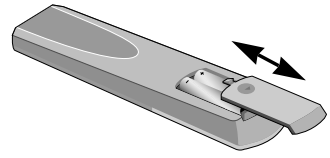
24. SKIP Left/Right
Playing CDs: Selects previous/next song.
Playing DVDs: Selects previous/next movie chapter.

25. STAND BY INDICATOR (⏻) (See page 6.)
Illuminates red bright when the TV is in standby mode. Refer to **"Turning the TV on/off"**.

26. REMOTE CONTROL SENSOR (See page 6.)

Installing Batteries in the Remote Control

- Open the battery compartment cover on the back side and insert the batteries with correct polarity.
- Install two 1.5V batteries of AA type. Don't mix used batteries with new batteries.



Basic TV Setup and Operation

Before operating your TV, make sure the TV has been connected to an antenna or cable system and the TV is plugged into a power outlet.

Turning the TV On/Off

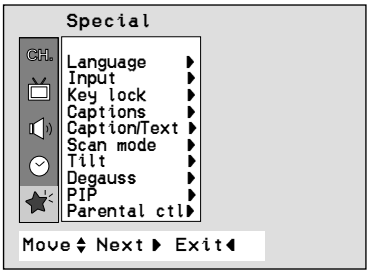
The set switches to standby mode and the standby indicator lights red.
To switch the TV on from standby mode, press the on/off, tv/video, ch+/- button on the set or tv/video, ch+/-, comp/dvi, power or number button on the remote control.
The on-screen will appear on the top-right of the screen and will disappear after a few seconds.

Press the **power** button on the remote control or the set. The TV reverts to standby mode.

Selecting the Menu Language

1. Press the **menu** button and then use ▲ / ▼ button to select the Special menu.
2. Press the ▶ and then use ▲/▼ button to select **Language**.
3. Press the ▶ and then use ▲ / ▼ button to select the desired language.

   From this point on, the menus will appear in the language you selected: English, Spanish or French.
4. Press the **exit** button to save and return to TV viewing.



Selecting the Main Picture Input Source

Changes the picture source for the main screen so you can watch your off-air TV, cable TV, VCR, DVD, or any other devices that are connected to your TV.

Using the tv/video button

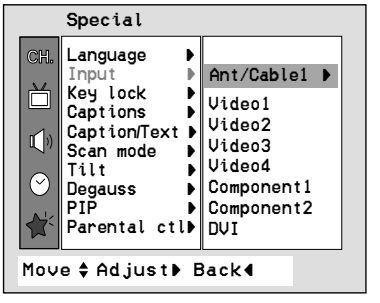
1. Repeatedly press the **tv/video** button to select **TV**, **Video 1**, **Video 2**, **Video 3**, **Video 4**, **Component 1**, **Component 2** or **DVI**.

Using the comp/dvi button

1. Repeatedly press the **comp/dvi** button to select **Component 1**, **Component 2** or **DVI**.

Using the menu button

1. Press the **menu** button and then use ▲ / ▼ button to select the Special menu.
2. Press the ▶ and then use ▲/▼ button to select **Input**.
3. Press the ▶ and then use ▲ / ▼ button to select **Ant/Cable1-2**, **Video 1**, **Video 2**, **Video 3**, **Video 4**, **Component 1** or **Component 2**.
4. Press the ◀ button to exit.



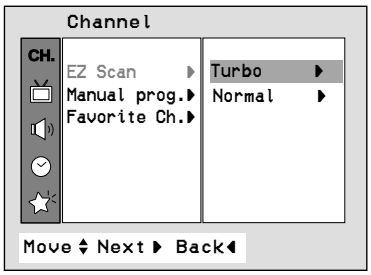
Channel Search

Channel Search memorizes all the active channels in your area. You must do a channel search before you can use the TV.
There two ways of memorizing channels. You can use either, **EZ Scan** or **MANUAL PROGRAM**.
In **EZ Scan**, the TV memorizes the channels in ascending numerical order.
You can also add or delete channels manually.

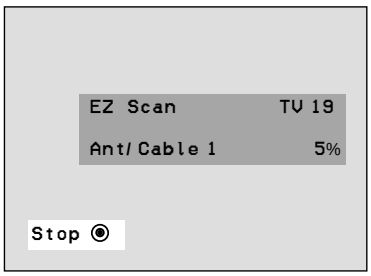
Memorizing the Channels with EZ Scan

EZ Scan searches and memorizes all the active channels in your area.
Select the desired channel with the ▲/▼ buttons.

1. Press the **menu** button and then use ▲ / ▼ button to select the Channel menu.
2. Press the ▶ and then use ▲/▼ button to select **EZ Scan**.
3. Press the ▶ and then use ▲/▼ button to select **Turbo** or **Normal**.
4. Press the ▶ button. The EZ Scan function starts.



If you want to stop auto programming, press the **ENTER (◉)** button.
Only the channels searched up to that time are memorized.



Notes

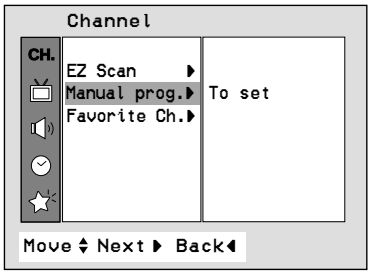
- **Turbo EZ Scan** works faster than **Normal EZ Scan**.
- If broadcast signals are poor quality, try memorize channels again using **Normal EZ Scan**.
- EZ scan stores all available channels regardless of signal (RF, Cable 1-2).
- If over-the-air and Cable TV channels are duplicated, use the number buttons (0 ~ 9) to change channels for:

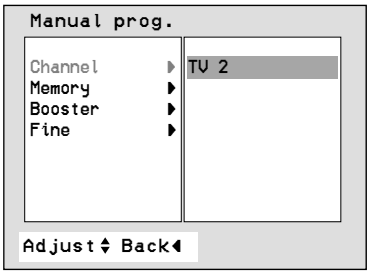
  Over-the-Air Channels ◀▶ Cable TV Channels .

- The color of channel displayed in the screen is blue when you are in Cable TV Channels and green, when you are in over-the air Channels.

Memorizing the Channels with MANUAL PROGRAM

1. Press the **menu** button and then use ▲ / ▼ button to select the Channel menu.
2. Press the ▶ and then use ▲/▼ button to select **Manual prog**.
3. Press the ▶ and then use ▲/▼ button to select **Channel**.
4. Press the ▶ and then use ▲ / ▼ button to select the channel number you want to memorize or erase.
5. Press the ◀ button and then use ▲/▼ button to select **Memory**.
6. Press the ▶ and then use ▲/▼ button to select **On** or **Off**.
7. Press the **exit** button to save and return to TV viewing.



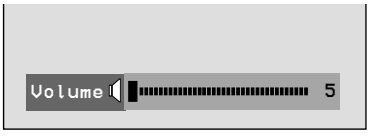


Tuning Channels

Use the **ch+/-** button to easily select the next higher or lower channel.
Or, use the **NUMBER** buttons to directly select the desired channel.

Adjusting the Sound Level (Not available in earphone).

Use the **vol+/-** buttons to increase or decrease the volume level. Turn off the sound pressing the **mute** button.
The word **Mute** is displayed
Using Mute is convenient if you need to answer a telephone call.
To restore the muted sound, press the **mute** button again or **vol+/-** button.

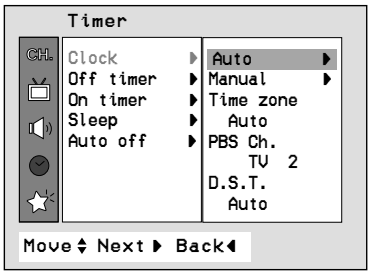


Setting the Clock

Before using the On/Off Timer features, set the current time on the clock.

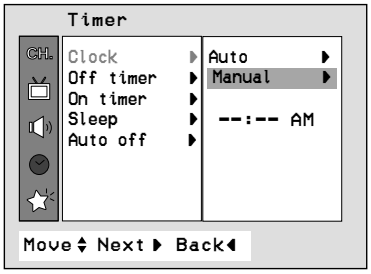
Auto Clock Setup

The time is set automatically through from a PBS broadcast signal. The PBS channel signal includes information for the correct time and daylight saving time.



1. Press the **menu** button and then use ▲ / ▼ button to select the Timer menu.
2. Press the ▶ and then use ▲/▼ button to select **Clock** .
3. Press the ▶ and then use ▲/▼ button to select **Auto** .
4. Press the ▶ button and then use the ▲/▼ button to select the time zone of your viewing area. Your choices are: **Auto**, **E.S.T. (Eastern Standard Time)**, **C.S.T. (Central Standard Time)**, **M.S.T. (Mountain Standard Time)**, **P.S.T. (Pacific Standard Time)**, **Alaska**, and **Hawaii**.
5. Press the ▶ button and then use the ▲/▼ button to set a PBS channel.
6. Press the ▶ button and then use the ▲ / ▼ button to set **D.S.T. (Daylight Saving Time) Auto**, **On**, and **Off**, depending on whether or not your viewing area observes Daylight Savings Time.
7. Press the **exit** button to save and return to TV viewing.

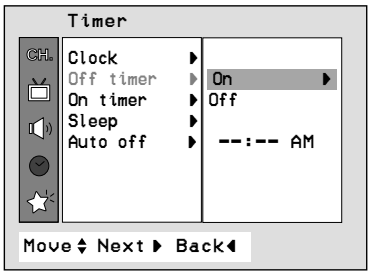
Manual Clock Setup



1. Press the **menu** button and then use ▲ / ▼ button to select the Timer menu.
2. Press the ▶ and then use ▲/▼ button to select **Clock** .
3. Press the ▶ button and then use the ▲/▼ button to select **Manual**.
4. Press the ▶ button and then use the ▲/▼ button to set the hours.
5. Press the ▶ button and then use the ▲ / ▼ button to set the minutes.
6. Press the **exit** button to save and return to TV viewing.

Off Timer Setup

Off Timer automatically switches the TV to standby mode at the preset time.



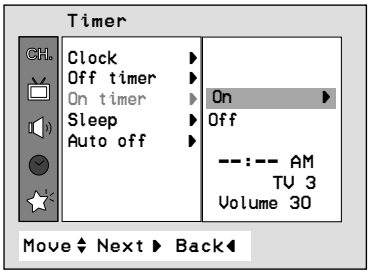
1. Press the **menu** button and then use ▲ / ▼ button to select the Timer menu.
2. Press the ▶ and then use ▲/▼ button to select **Off timer**.
3. Press the ▶ and then use ▲/▼ button to select **On**.
4. Press the ▶ button and then use the ▲/▼ button to set the hours.
5. Press the ▶ button and then use the ▲ / ▼ button to set the minutes.
6. Press the **exit** button to save and return to TV viewing.

Note

- If the same time is set for both on time and off time, only off time operates.

On Timer Setup

On Timer automatically turns the TV on at the preset time and tunes to the specified channel.



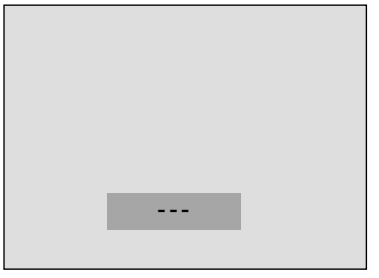
1. Press the **menu** button and then use ▲ / ▼ button to select the Timer menu.
2. Press the ▶ and then use ▲/▼ button to select **On timer**.
3. Repeat OFF TIMER steps 3 to 5.
4. Press the ▶ and then use ▲/▼ button to select the desired channel.
5. Press the ▶ and then use ▲ / ▼ button to set the volume level at turn on.
6. Press the **exit** button to save and return to TV viewing.

Notes

- If you don't press any button within 2 hours after turning on the TV with the ON TIMER function, the TV will automatically switch back to standby mode.
- TV must be in standby mode for the On Timer to work.

Sleep Timer Setup

You don't have to remember to switch the TV to standby mode before you go to sleep. The Sleep Timer automatically turns the TV off after the preset sleep time expires.
Use the **sleep** button to select the desired sleep time.
Each time you press this button, preset sleep time settings are displayed one by one as shown below. The Sleep Timer begins to count down from the number of minutes selected.



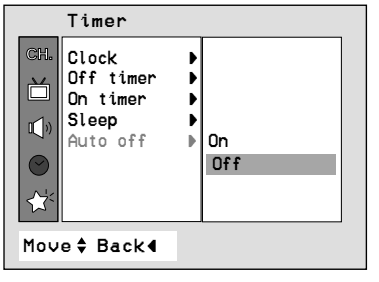
--- → **10** → **20** → **30** → **60** → **90** → **120** → **180** → **240**

Notes

- After a few seconds, the desired sleep time setting will disappear and the TV turn-off function will operate automatically.
- To view the remaining sleep time, press the **sleep** button once and the remaining sleep time will be displayed.
- To cancel the Sleep Timer, select the --- setting with **sleep** button.

Auto Off

If an input signal is not present, the TV is switched to standby mode automatically in 10 minutes.

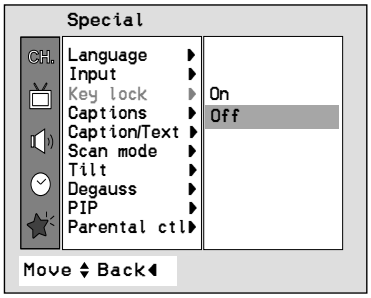


1. Press the **menu** button and then use ▲ / ▼ button to select the Timer menu.
2. Press the ▶ and then use ▲/▼ button to select **Auto off**.
3. Press the ▶ and then use ▲/▼ button to select **On** or **Off**.
4. Press the **exit** button to save and return to TV viewing.

Key Lock

The TV can be set up so that the remote control is needed to operate it. This feature can be used to prevent unauthorized viewing.

1. Press the **menu** button and then use ▲ / ▼ button to select the special menu.
2. Press the ▶ and then use ▲/▼ button to select **Key lock**.
3. Press the ▶ and then ▲/▼ button to select **On** or **Off**.
4. Press the **exit** button to save and return to TV viewing.



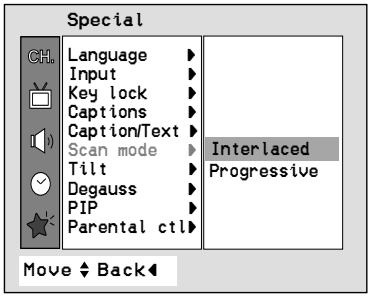
Notes

- With the key lock on, the display **Key lock** appears on the screen if any button on the front panel is pressed while viewing the TV.
- This TV is programmed to remember which option it was last set to when you switch the TV on from standby mode.

Scan Mode

Scan Mode selects the output format.

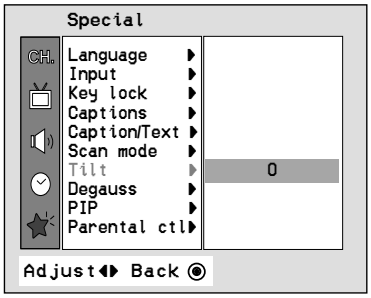
1. Press the **menu** button and then use ▲ / ▼ button to select the Special menu.
2. Press the ▶ and then use ▲/▼ button to select **Scan mode**.
3. Press the ▶ and then use ▲ / ▼ button to select **Interlaced** (for watching normal TV) or **Progressive** (for viewing a more stationary image, a video game for example).
4. Press the **exit** button to save and return to TV viewing.



Picture Tilt

The picture on the TV screen may tilt to left or right if the TV is moved to another direction. Picture Tilt can be used to correct any uneven picture tilt.

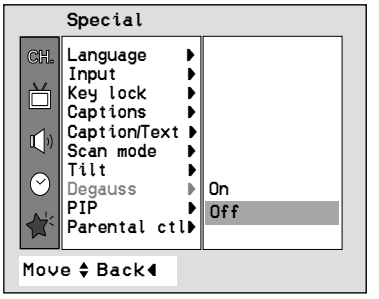
1. Press the **menu** button and then use ▲ / ▼ button to select the special menu.
2. Press the ▶ and then use ▲/▼ button to select **Tilt**.
3. Press the ▶ and then use ◀/▶ button to adjust the tilt.
4. Press the **ENTER (◉)** button to exit.



Degaussing

In this TV, the magnetic field of the earth may influence the color purity of the picture. The picture can also be disturbed by other nearby magnetic influences or perhaps because of the location of the TV itself. Stripes may appear on the screen or the color may not be equal in the corners. Use Degauss to reset the color purity.

1. Press the **menu** button and then use ▲ / ▼ button to select the special menu.
2. Press the ▶ and then use ▲/▼ button to select **Degauss**.
3. Press the ▶ and then use ▲/▼ button to select **On** or **Off**.
   After the degaussing function works, **ON** mode switches to **OFF** mode automatically.
4. Press the **exit** button to save and return to TV viewing.



Notes

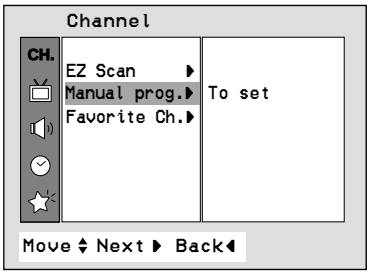
- Do not use Degauss too often or the life of CRT may be shortened.
- If you are unable to correct problem by degaussing, try again after about 4 minutes.

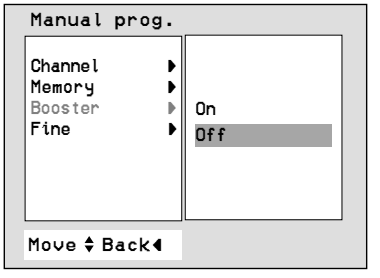
Booster

If the reception is poor at the fringe area of TV signal, select **Booster** to **On**. If the picture condition is good, do not select **Booster** to **On**.

1. Press the **menu** button and then use ▲ / ▼ button to select the channel menu.
2. Press the ▶ and then use ▲/▼ button to select **Manual prog.**.
3. Press the ▶ and then use ▲/▼ button to select **Booster**.
4. Press the ▶ and then use ▲/▼ button to select **On** or **Off**.
5. Press the **exit** button to save and return to TV viewing.

Note : Adjustment for one channel don't affect the adjustment of other channels. Readjust booster for desired channel separately.



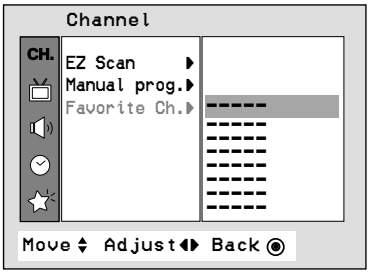


Favorite Channel Memory

Favorite channel memory is a convenient feature that lets you quickly scan up to eight channels of your choice without having to wait for the TV to scan through all the in-between channels.

1. Press the **menu** button and then use ▲ / ▼ button to select the Channel menu.
2. Press the ▶ and then use ▲/▼ button to select **Favorite Ch.**.
3. Press the ▶ and then use ▲/▼ button to select a favorite channel position.
4. Use the ◀/▶ button to select the desired channel number.
5. Repeat steps 3 to 4.
6. Press the **exit** button to save and return to TV viewing.

To select a favorite channel, repeatedly press the **fcr** (Favorite Channel Review) button. Eight channels programmed appear on the screen one by one.



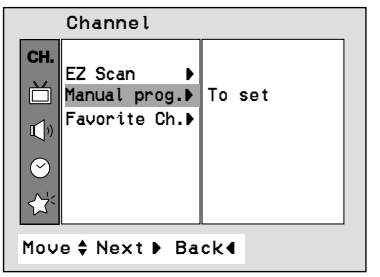
Fine Tuning Adjustment

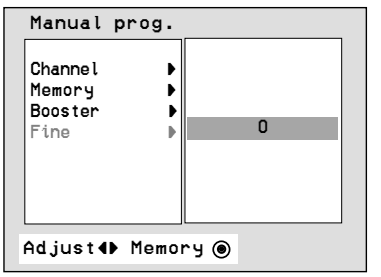
Fine Tuning adjusts the picture to a stable condition when it is poor, for example, a horizontal stripe, twisted picture or no color in program.

1. Press the **menu** button and then use ▲ / ▼ button to select the Channel menu.
2. Press the ▶ and then use ▲/▼ button to select **Manual prog**.
3. Press the ▶ and then use ▲/▼ button to select **Fine**.
4. Press the ▶ and then use ◀ / ▶ button to adjust the picture appearance to your preference.
5. Press the **ENTER (⦿)** button to exit.

Notes

- To remove the memorized fine tuning setting, reprogram the fine-tuned channel with EZ Scan or MANUAL PROGRAM.
- If a finely tuned channel is memorized, the color of the channel number changes to yellow.



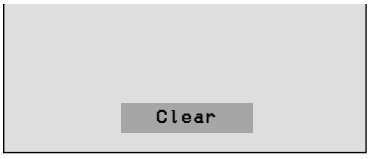


EZ Video

You can select preprogrammed picture modes.

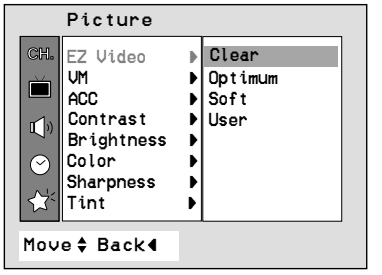
Choosing a picture mode with the video button

1. Repeatedly press the **video** button to select **Clear**, **Optimum**, **Soft** or **User**.
2. Press the **exit** button to save and return to TV viewing.



Choosing a picture mode with the Picture menu

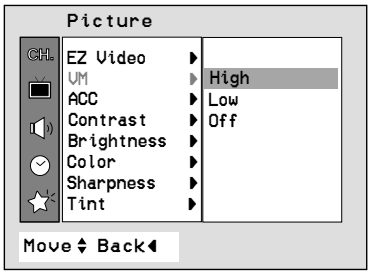
1. Press the **menu** button and then use ▲ / ▼ button to select the Picture menu.
2. Press the ▶ and then use ▲/▼ button to select **EZ Video**.
3. Press the ▶ and then use ▲/▼ button to select **Clear**, **Optimum**, **Soft**, or **User**.
4. Press the **exit** button to save and return to TV viewing.



VM (Velocity Modulation)

If you select **VM High**, the TV will automatically enhance the sharpness of the image's edges.

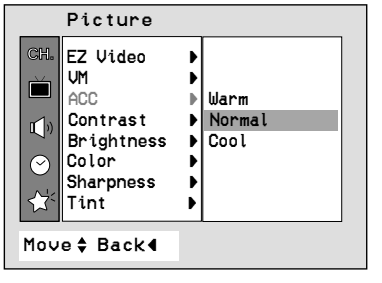
1. Press the **menu** button and then use ▲ / ▼ button to select the Picture menu.
2. Press the ▶ and then use ▲/▼ button to select **VM**.
3. Press the ▶ and then use ▲/▼ button to select **High**, **Low**, or **Off**.
4. Press the **exit** button to save and return to TV viewing.



ACC (Auto Color Control)

Specify the picture color appearance.

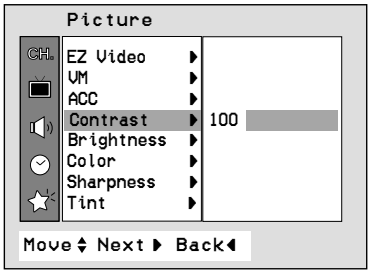
1. Press the **menu** button and then use ▲ / ▼ button to select the Picture menu.
2. Press the ▶ and then use ▲/▼ button to select **ACC**.
3. Press the ▶ and then use ▲/▼ button to select **Warm**, **Normal**, or **Cool**.
4. Press the **exit** button to save and return to TV viewing.



Adjusting the Picture

This is the function to manually adjust the picture levels: **Contrast**, **Brightness**, **Color**, **Sharpness**, and **Tint** to your preference. If the picture settings you adjust are not satisfactory, you can also select a factory preset picture setup.

1. Press the **menu** button and then use ▲ / ▼ button to select the Picture menu.
2. Press the ▶ and then use ▲/▼ button to select the desired picture option.
3. Press the ▶ and then use ◀/▶ button to adjust the level.
   The setting of highlighted menu option is displayed.
   Use the ▲/▼ button to select other options.
4. Press the **exit** button to save and return to TV viewing.



Picture Formats (Not available in 720p and 1080i)

You can select 4:3 or 16:9 picture formats

1. Use the **arc** button to select your desired picture format.
   Each time you press this button, the **4:3** or **16:9** aspect ratio appear in turn.
2. Press the **exit** button to save and return to TV viewing.

Notes

- In Component Video Input 720p/1080i, you are able to use 16:9 aspect ratio.
- This function is not available in Twin picture/Channel search mode.

Stereo/SAP Broadcasts Setup

This TV can receive MTS stereo programs and any SAP (Second Audio Program) accompanying the stereo program. The broadcaster may transmit one additional sound signal as well as the original one. The MTS function doesn't operate in the video mode.

1. Use the **mts** button to select your desired MTS mode.
   Each time you press this button, the **Mono**, **Stereo**, or **SAP** mode appear in turn.
2. Press the **exit** button to save and return to TV viewing.

Notes

- Stereo or SAP can only be received when the TV station transmits those signals, even though you have selected **Stereo** or **SAP**.
- Mono sound is automatically received if the broadcast is only in Mono; even though **Stereo** or **SAP** has been selected.
- Select **Mono** if you want to listen to mono sound in remote fringe areas during stereo/SAP broadcasting.

EZ Audio

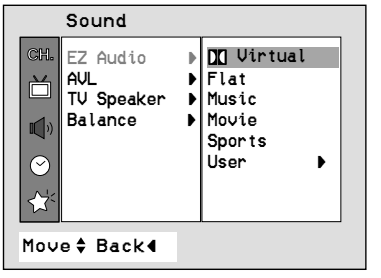
You can enjoy the best sound without any special adjustment because the TV automatically adjusts the sound appropriate to the program character.

Choosing a sound mode with the audio button

1. Repeatedly press the **audio** button to select **Virtual**, **Flat**, **Music**, **Movie**, **Sports**, or **User**.
2. Press the **exit** button to save and return to TV viewing.

Choosing a sound mode with the Sound menu

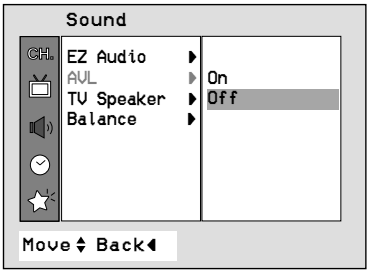
1. Press the **menu** button and then use ▲ / ▼ button to select the Sound menu.
2. Press the ▶ and then use ▲ / ▼ button to select **EZ Audio**.
3. Press the ▶ and then use ▲ / ▼ button to select **Virtual**, **Flat**, **Music**, **Movie**, **Sports**, or **User**.
4. Press the **exit** button to save and return to TV viewing.



Notes

- Manufactured under license from Dolby Laboratories. “Dolby”, “Pro Logic”, and the double-D symbol are trademarks of Dolby Laboratories.
- **Virtual** lets you experience panoramic sound effects.

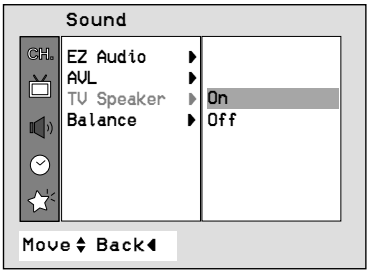
AVL (Auto Volume Leveler)



AVL automatically maintains an equal volume level; even if you change channels.

1. Press the **menu** button and then use ▲ / ▼ button to select the Sound menu.
2. Press the ▶ and then use ▲/▼ button to select **AVL**.
3. Press the ▶ and then use ▲/▼ button to select **On** or **OFF**.
4. Press the **exit** button to save and return to TV viewing.

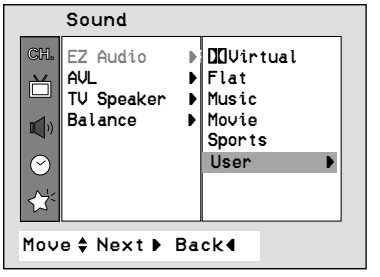
TV Speaker

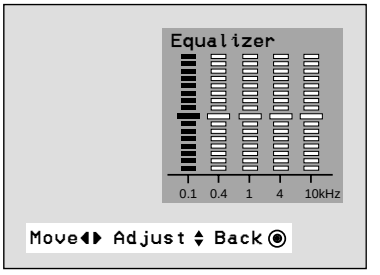


If you want to use your external hi-fi stereo system, select **TV Speaker** - **Off** to turn the TV internal speakers off.

1. Press the **MENU** button and then use ▲ / ▼ button to select the Sound menu.
2. Press the ▶ and then use ▲/▼ button to select **TV Speaker**.
3. Press the ▶ and then use ▲/▼ button to select **On** or **Off**.
4. Press the ◀ button to exit.

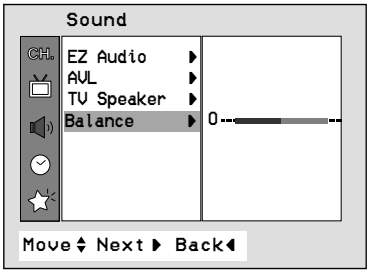
Adjusting the Equalizer (User mode in EZ Audio)





1. Press the **menu** button and then use ▲ / ▼ button to select the Sound menu.
2. Press the ▶ and then use ▲/▼ button to select **EZ Audio**.
3. Press the ▶ and then use ▲/▼ button to select **User**.
4. Press the ▶ and then use ◀ / ▶ button to select the sound band and then use ▲/▼ button to adjust the desired level.
5. Press the **exit** button to save and return to TV viewing.

Adjusting Balance

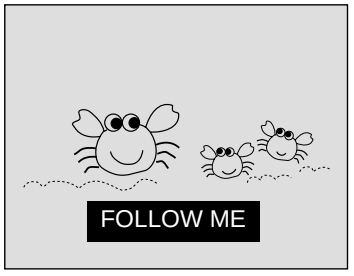


1. Press the **menu** button and then use ▲ / ▼ button to select the Sound menu.
2. Press the ▶ and then use ▲/▼ button to select **Balance**.
3. Press the ▶ and then use ◀/▶ button to adjust the balance level.
4. Press the **exit** button to save and return to TV viewing.

Closed Captions

Closed captioning is a process which converts the audio portion of a television program into written words, which then appear on the television screen in a form similar to subtitles. Closed captions allow viewers to read the dialogue and narration of television programs.

Using Closed Captions



Captions are the subtitles of the dialogue and narration of television programs. For prerecorded programs, program dialogue can be arranged into captions in advance. It's possible to caption a live program by using a process called “real-time captioning”, which creates captions instantly. Real-time captioning is normally done by professional reporters using a machine shorthand system and computer for translation into English.
Captioning is an effective system for the hearing-impaired, and it can also aid in teaching language skills.

• The picture at left shows a typical caption.

Caption Tips

- Not all TV broadcasts include closed caption signals.
- Sometimes TV stations broadcast two different caption signals on the same channel. By selecting CC 1 or CC 2, you can choose which signal you view. CC 1 is usually the signal with the captions, while CC 2 might show demonstration or programming information.
- Your TV might not receive caption signals normally in the following situations.

1 Poor reception conditions are encountered:

■ IGNITION:
Picture may flutter, drift, suffer from black spots or horizontal streaking. Usually caused by interference from automobile ignition systems, neon lamps, electrical drills and other electrical appliances.

■ GHOSTS:
Ghosts are caused when the TV signal splits and follows two paths. One is the direct path and the other is reflected off tall buildings, hills or other objects. Changing the direction or position of the antenna may improve reception.

■ SNOW:
If your receiver is located at the weak, fringe area of a TV signal, your picture may be marred by small dots. It may be necessary to install a special antenna to improve the picture.

2 An old, bad or illegally recorded tape is played.

3 Strong, random signals from a car or airplane interfere with the TV signal.

4 The signal from the antenna is weak.

5 The program wasn't captioned when it was produced, transmitted or taped.

Using the Text Function

Text services give a wide variety of information on all kind of subjects (ex. captioned program lists, weather forecasts, stock exchange topics, news for hearing-impaired---) through the full TV screen.
But not all stations offer text services, even though they might offer captioning.

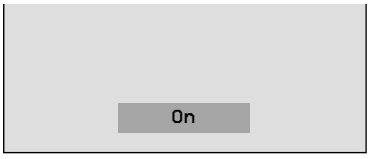
Note

- In the event you receive a poor signal, an empty black box may appear and disappear, even when the text mode is selected. This is normal function in such an event.

Captions On, Off, EZ mute Setup

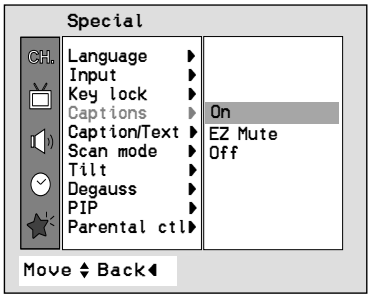
Captions set up with the cc button

1. Use the **cc** button to select **On**, **EZ Mute** or **Off**.
2. Press the **exit** button to save and return to TV viewing.



Captions set up with the Menu

1. Press the **menu** button and then use ▲ / ▼ button to select the Special menu.
2. Press the ▶ and then use ▲/▼ button to select **Captions**.
3. Press the ▶ and then use ▲/▼ button to select **On**, **EZ Mute** or **Off**.
4. Press the **exit** button to save and return to TV viewing.

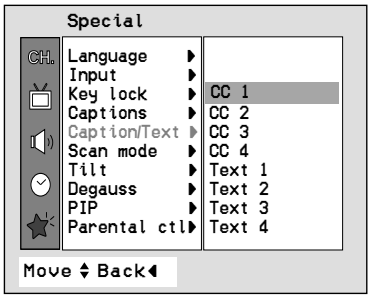


Note

- EZ mute shows the selected captions option (if available on program) when the TV sound is muted.

Operating the Caption and Text

1. Press the **menu** button and then use ▲ / ▼ button to select the special menu.
2. Press the ▶ and then use ▲/▼ button to select **Caption/Text**.
3. Press the ▶ and then use ▲/▼ button to select **CC1**, **CC2**, **CC3**, **CC4**, **Text 1** , **Text 2** , **Text 3** or **Text 4**.
4. Press the **exit** button to save and return to TV viewing.



Note

- This TV is programmed to remember which mode it was last set to, even if you turn the TV off.

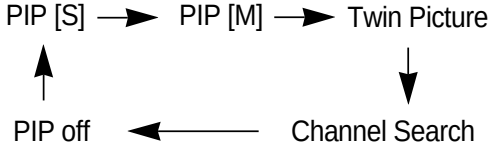
PIP/Twin Picture Modes

NOTES: PIP is not available when selecting “on” Parental ctl.

Watching PIP (Picture-in-Picture) (Not available in 720p and 1080i)

PIP is a little picture placed on the larger main picture screen. Using the PIP feature enables you to see two different programs on the TV screen at the same time.

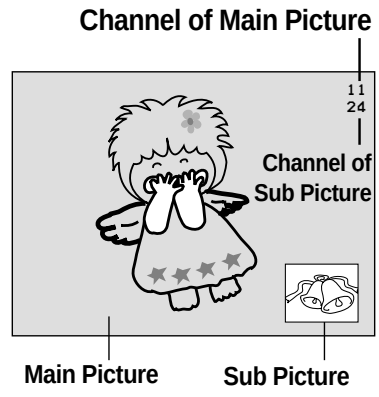
1. Use the **pip** button to select either the PIP mode or twin picture mode. Press the **pip** button repeatedly to select the desired sub picture size. The sub picture appears as indicated below.



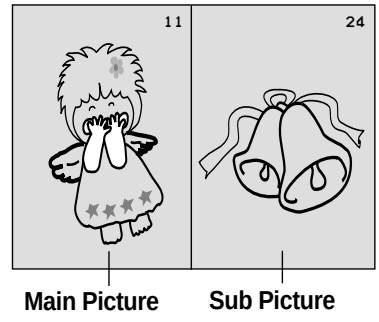
2. Use the **pipch+** or **pipch−** button to select the desired channel for the sub picture.

Note

- Use the **CH +/−** button to select the next higher/lower channel for the main picture and use the **pipch+/pipch−** button to select the next higher/lower channel for the sub picture.



PIP Mode



Twin Picture Mode

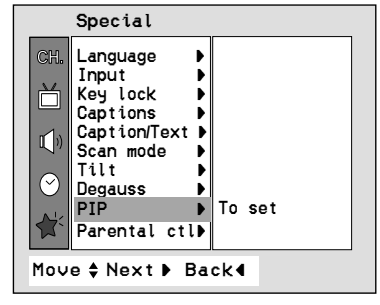
Selecting the viewing source (in PIP and Twin picture modes)

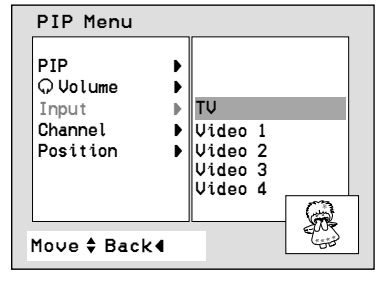
Source selection with the pip input button

1. Press the **pip input** button repeatedly to select **TV**, **Video 1**, **Video 2**, **Video 3**, or **Video 4**.
2. Press the **exit** button to save and return to TV viewing.

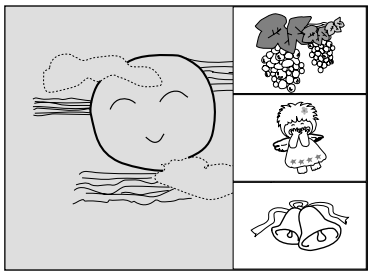
Source selection with the menus

1. Press the **menu** button and then use ▲ / ▼ button to select the Special menu.
2. Press the ▶ and then use ▲/▼ button to select **PIP**.
3. Press the ▶ and then use ▲/▼ button to select **Input**.
4. Press the ▶ and then use ▲ / ▼ button to select **TV**, **Video 1**, **Video 2**, **Video 3**, or **Video 4**.
5. Press the **exit** button to save and return to TV viewing.





POP (Picture-Out-Picture)



Use this Channel Search to view the pictures of all the programmed channels one-by-one on the 3 PIP screen display, while the main screen remains the current channel.

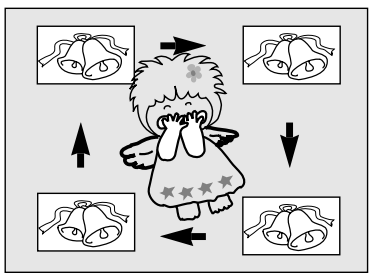
Press the **pip** button in twin picture mode.
The pictures of all the programmed channels are searched with the 3 PIP screen, as shown to the right.

To exit channel search, press the **exit** button.

Note

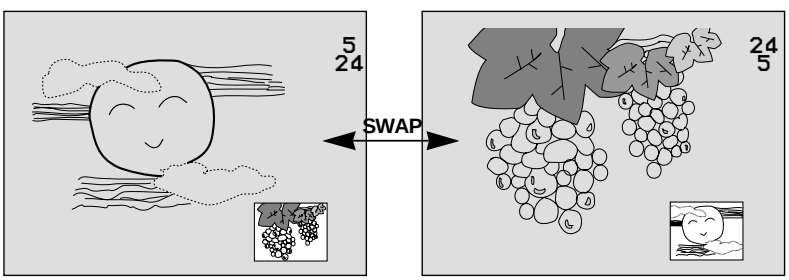
- By pressing the **swap** button, you can see the channel being searched on the PIP screen through the main screen.

Moving the Sub Picture (in PIP mode)



Press the **position** button to change the sub picture position. Each press of **position** moves the sub picture in a clockwise direction.

Swapping Main/Sub Pictures



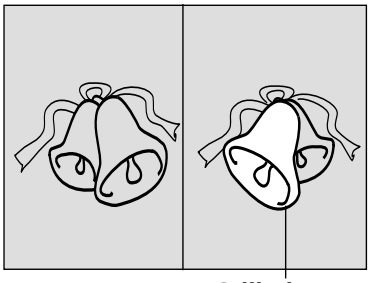
Press the **swap** button.
Each time you press **swap**, the main and sub pictures exchange places.

Still Picture (Freeze) (Not available in 720p and 1080i)

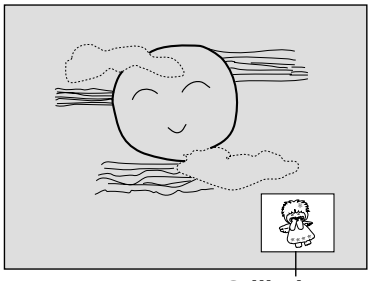
Press the **freeze** button.
In PIP mode, the sub picture is frozen.

To cancel the still picture, press the **freeze** button again.

Notes
- If PIP mode is not active, the currently-viewed picture is frozen when the **freeze** button is pressed.



Twin Picture Mode

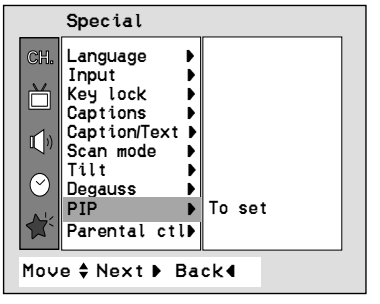


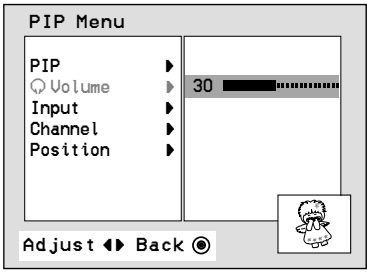
PIP Mode

Adjusting the Earphone Volume (in PIP and Twin picture modes)

1. Press the **menu** button and then use ▲ / ▼ button to select the Special menu.
2. Press the ▶ and then use ▲/▼ button to select **PIP**.
3. Press the ▶ and then use ▲/▼ button to select **Volume**.
4. Press the ▶ and then use ◀ / ▶ button to adjust earphone sound level.
5. Press the **exit** button to save and return to TV viewing.

Note
- This function dones't work in COMPONENT mode.





Parental Control

The Parental Control Function (V-Chip) is used to block program viewing based on the ratings sent by the broadcast station. The default setting is to allow all programs to be viewed. Viewing can be blocked by the type of program and by the categories chosen to be blocked. It is also possible to block all program viewing for a time period. To use the Parental Control Function, the following must be set.

1. Ratings and categories to be blocked.
2. Number of hours to lock the television viewing control.
3. Set a password.
4. Enable the lock.

V-Chip Rating and Categories

Rating guidelines are provided by broadcast stations. Most television programs and television movies can be blocked by TV Rating and/or Individual Categories. Movies that have been shown at the theaters or direct-to-video movies use the Movie Rating System (MPAA) only.

For Movies Previously Shown in Theaters

Movie Ratings:

- Unblocked
- G and Above (general audience)
- PG and Above (parental guidance suggested)
- PG-13 and Above (13 years and up)
- R and Above (restricted)
- NC-17 and Above (18 years and up)
- X (adult)

If you set PG-13 and Above, G and PG movies will be available; PG-13, R, NC-17, and X will be blocked.

For Television programs including made-for-TV movies:

General TV Ratings:

- Unblocked
- TV-G and Above (general audience) (individual categories do not apply)
- TV-PG and Above (parental guidance suggested)
- TV-14 and Above (14 years and up)
- TV-MA (mature audience)

Children TV Ratings:

- Unblocked
- TV-Y and Above (youth) (individual content categories do not apply)
- TV-Y7 (youth, 7 years and up)

Content Categories:

- Dialog - sexual dialogue (applies to TV-PG and Above, TV-14)
- Language - adult language (applies to TV-PG and Above, TV-14 and Above, TV-MA)
- Sex scenes - sexual situations (applies to TV-PG and Above, TV-14 and Above, TV-MA)
- Violence (applies to TV-PG and Above, TV-14 and Above, TV-MA)
- F Violence - fantasy violence (applies only to TV-Y7)
- No Rating (blocks all viewing)

Canadian English language rating system:

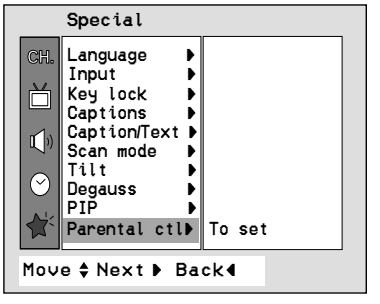
- Unblocked
- C and above (Children)
- C8 and above (8 years and up)
- G and above (General audience)
- PG and above (Parental guidance suggested)
- 14+ and above (Viewers 14 years and up)
- 18+ and above (Adult)

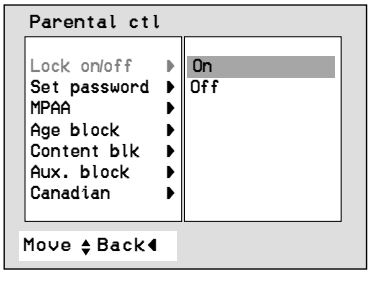
Canadian French language rating system:

- Unblocked
- G and above (General audience)
- 8+ and above (8 years and up)
- 13+ and above (13 years and up)
- 16+ and above (16 years and up)
- 18+ and above (Adult)

Blocking Setup

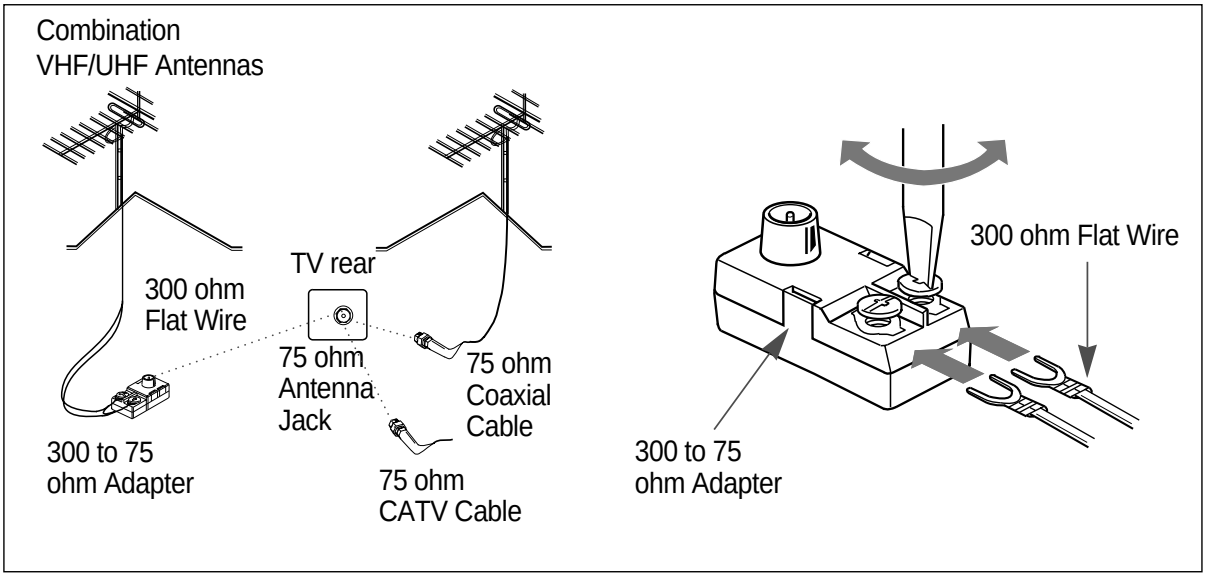
1. Press the **menu** button and then use ▲/▼ button to select the Special menu.
2. Press the ▶ and then use the ▲/▼ button to select **Parental ctl**.
3. Press the ▶ and then set the initial 4-digit password "7-7-7-7" with the number keypad. If Parental is already set, enter the password when requested.
4. Press the ▲/▼ button to select the **Lock on/off**.
5. Press the ▶ and then use the ▲/▼ button to select the **on** or **off**.
6. Press the ◀ and then use the ▲/▼ button to select the **Set password**.
7. Press the ▶ button. Enter a four number password. Enter it again when requested.
8. Press the ◀ and then use the ▲/▼ button to select the types of blocking to be set.
9. Press the ▶ and then use the ▲/▼ button to select the types of ratings to block.
   Age block, Content block, Aux. block, and Canadian options, also have sub menus; repeat steps 8 to 9 in sub menu, to set type of blocking and rating.
10. Press the **exit** button to save and return to TV viewing.





Note: Use "7-7-7-7" code, in case you forgot the password.

Antenna Connections



Connecting an Outdoor Antenna

For the best reception, we recommend you use an outdoor antenna.
Severely weathered antennas and antenna cables can reduce the signal quality. Check antenna and antenna cables condition before making connections. Any service center can explain the various outdoor antennas available to you.

300 Ohm Flat Wire

1. Connect the 300 ohm flat wire to screws on the 300 ohm to 75 ohm adapter.
2. Push the end of 300 ohm to 75 ohm adapter into 75 ohm antenna jack.

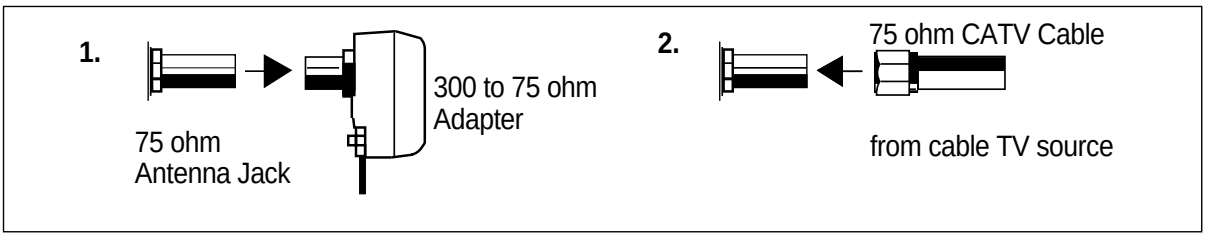
75 Ohm Coaxial Cable

1. Connect the 75 ohm coaxial cable directly to the 75 ohm antenna jack.

Note: 300 ohm to 75 ohm adapter is sold separately.

Connecting a CATV Cable

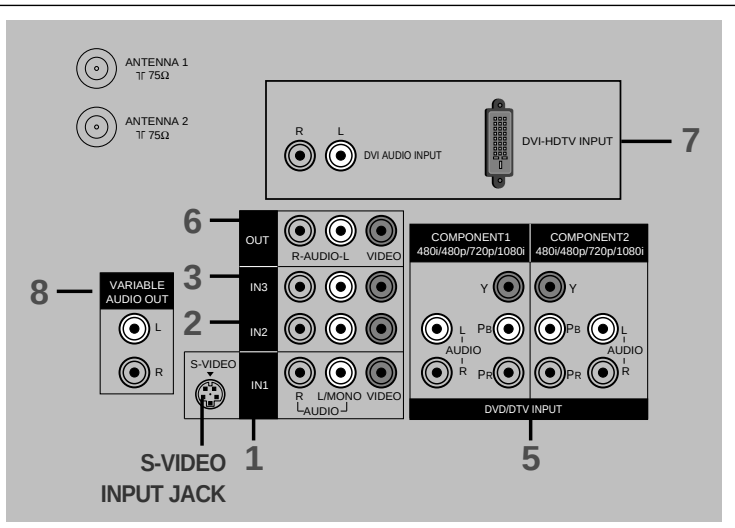
If you subscribe to a CATV system, change the antenna connection as described below.

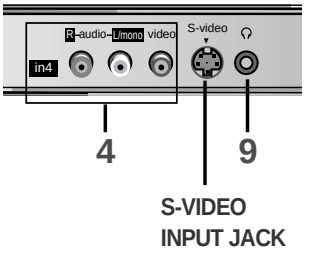


1. Remove the 300 to 75 ohm adapter or the cable from the set if attached.
2. Connect the CATV cable (75 ohm coaxial cable) to the 75 ohm antenna jack.

External Equipment Connection and Viewing Setup

You can connect additional equipment, such as VCRs, camcorders etc. to your TV.
Connection panels shown here may be somewhat different from your TV.
Here is an example drawing of a typical jackpack layout.





1. **IN 1** JACKS : Connect external equipment outputs (VCR, DVD, CAMCORDER) to these inputs. Use the **tv/video** button to select **Video 1**.
2. **IN 2** JACKS : Connect external equipment outputs (VCR, DVD, CAMCORDER) to these inputs. Use the **tv/video** button to select **Video 2**.
3. **IN 3** JACKS : Connect external equipment outputs (VCR, DVD, CAMCORDER) to these inputs. Use the **tv/video** button to select **Video 3**.
4. **IN 4** JACKS : Connect external equipment outputs (VCR, DVD, CAMCORDER) to these inputs. Use the **tv/video** button to select **Video 4**.
5. **DVD/DTV INPUT** JACKS : Connect component output jacks to these inputs. Use the **tv/video** or **comp/dvi** button to select **Component 1**, **Component 2**.
6. **OUT** JACKS: Connect external equipment inputs (VCR, Audio amplifier) to these outputs for recording or monitoring the selected program.
7. **DVI INPUT** JACK: Connect set-top box to these input. Use the **tv/video** or **comp/dvi** button to select **DVI**. Your set-top devices may be used if they have a DVI-HDTV output connector that supports the proper version of DVI and HDCP.
8. **VARIABLE AUDIO OUT** JACKS: Connect analog stereo amplifier to your front speaker.
9. **EARPHONE** JACK: Use Stereo/Mono earphones to this jack. The audio from earphone is in mono only. For the earphones, the volume level can only be modified using the special menu for PIP (See page 25). Stereo and SAP are not available for earphones. Also, with the earphones the Mute button does not work. You should turn off the speakers, if you don't want to listen to the speaker's audio. See page 20 "TV Speaker". After the earphones are connected, it automatically picks up the audio from PIP or Twin Picture.

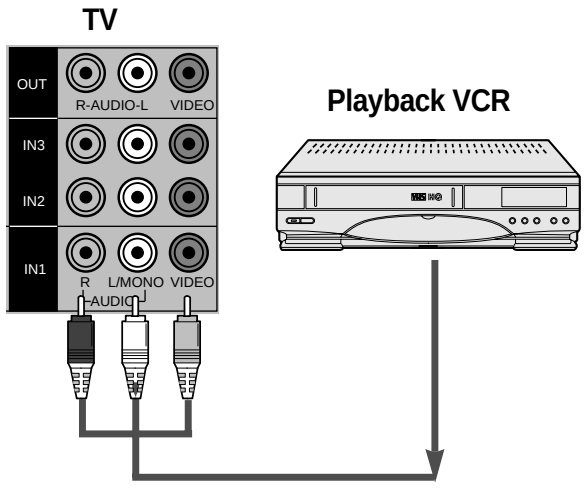
Note: This TV is programmed to remember which mode it was last set to, even if you turn the TV off.

Connecting AUDIO/VIDEO IN Jacks

1. Connect the audio/video output jacks from the VCR to **IN 1** (A/V) jacks on the TV.
2. Use the **tv/video** button to select **Video 1**.
   • If you connect the audio/video output jacks from the VCR to the **IN2**, **IN3** or **IN4** jacks on the TV, select **Video 2**, **Video3**, or **Video 4**.
3. Press the **PLAY** button on the VCR.
   The video playback is on the TV screen.

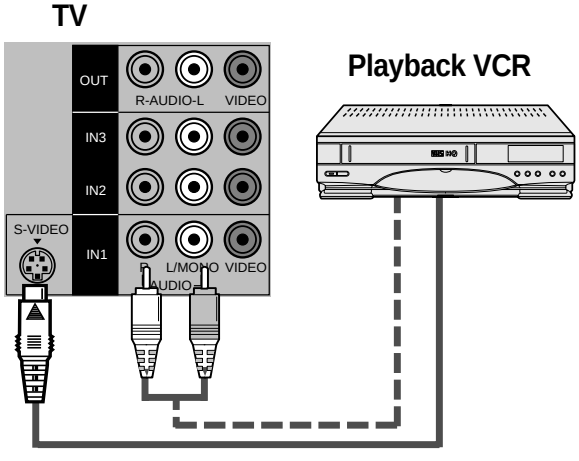
Notes

- If using a monaural VCR, connect the output jack from VCR to the **AUDIO L/MONO IN** jack on TV so that the sound can be heard from both speakers. If you connect the output jack to the **AUDIO R IN** jack on the TV, the sound is only heard from right speaker.
- When the input jacks on the front panel and back panel are connected to external equipment at the same time, the input jacks on the front panel have priority over the input jacks on the back panel of the TV.



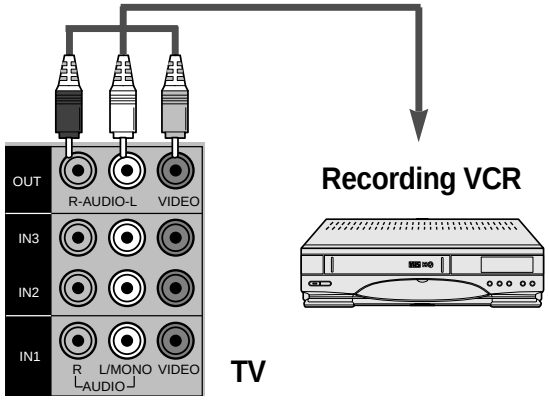
Connecting an S-VHS VCR

1. Connect the S-VHS output jack from the VCR to the **S-VIDEO** jack on the TV.
2. Connect the audio/video output jacks from the VCR to the **IN 1** or **IN 4** jacks on the TV.
3. Use the **tv/video** button to select **Video 1** or **Video 4**.
4. Press the **PLAY** button on the VCR.
   The video playback is visible on the TV screen.



VCR Recording

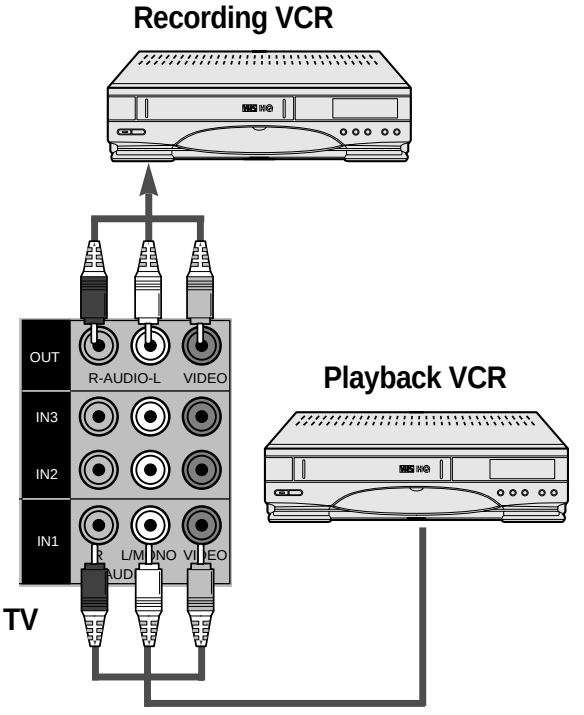
1. Connect the audio/video input jacks from the recording VCR to the **OUT** (A/V) jacks on the TV back.
2. Select the program number on the TV.
3. Set the recording VCR to record.



Recording a program from external equipment

1. Connect the output jacks from the playback VCR to the **IN 1**, **IN 2**, **IN 3**, or **IN 4** jacks on the TV.
2. Connect the input jacks from the recording VCR to the **OUT** (A/V) jacks on the TV.
3. Use the **tv/video** button to select **Video 1**, **Video 2**, **Video3**, or **Video 4**
4. Press the **PLAY** button on the playback VCR and set the recording VCR to record.

Note:
- If you use Component or DVI inputs, there will not be any video or audio in the monitor out jacks.

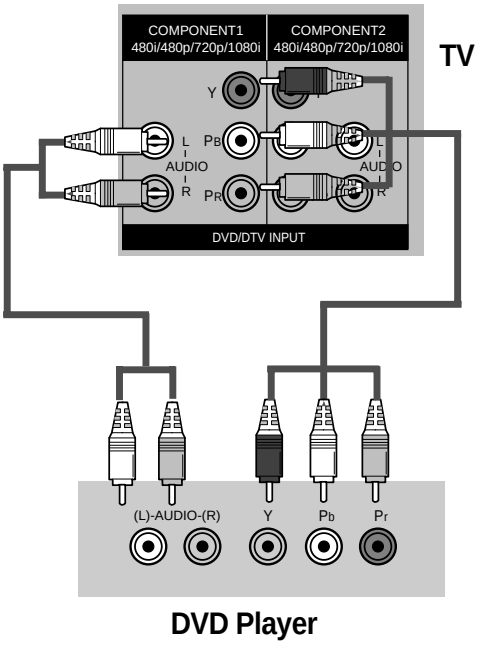


DVD Player Connection

1. Connect the DVD component video outputs to Y, P_B, P_R on the TV and DVD audio outputs to right and left jacks of audio (L/R) inputs on the TV.
2. Turn on the DVD player and insert a DVD.
3. Use the **tv/video** or **comp/dvi** button to select **Component 1** or **Component 2**.

Note
- This TV is programmed to remember which mode it was last set to, even if you turn the TV off.

TV INPUT	Y	P_B	P_R
DVD OUTPUT	Y	Cb	Cr
	Y	B-Y	R-Y
	Y	Pb	Pr
	Y	P_B	P_R

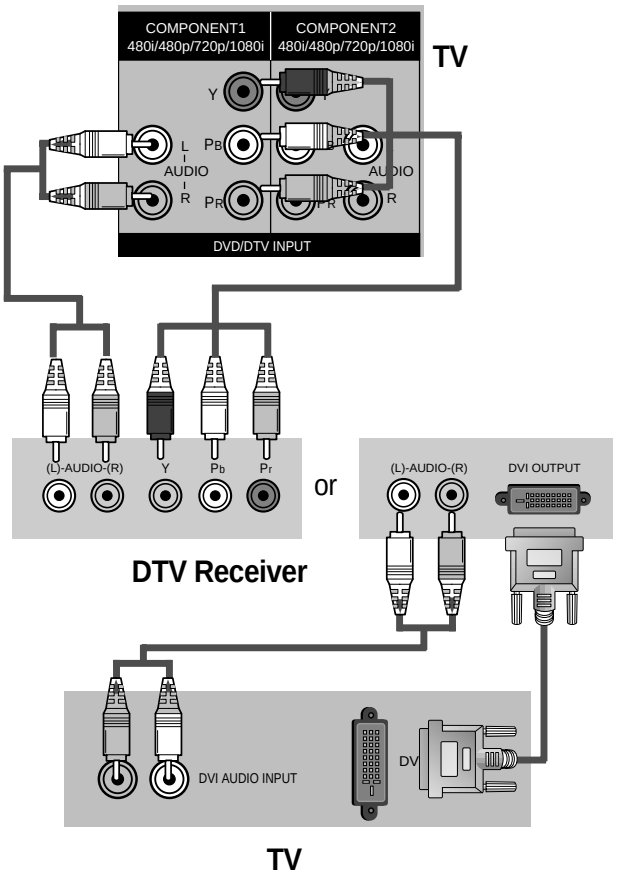


DTV (Set-top Box) Connection

1. Connect DTV component video outputs to Y, P_B, P_R on the TV and audio outputs to right and left inputs of audio (L/R) jacks.
2. Turn on the digital set-top box.
   Use the **tv/video** or **comp/dvi** button to select **Component 1** or **Component 2**.
   • If you connect the DVI output jack of the DTV to the DVI input jack on the TV, select **DVI**.

Note

• For the best access to high-definition programming at the highest available resolution broadcast, connect the DVI-HDTV output to the corresponding DVI-HDTV input that supports High-band-width Digital Content Protection (HDCP) technology on your High-Definition monitor. Please check your HDTV set-top box or HDTV receiver user's manual or contact the manufacturer to find out if your HDTV receiver provides HDCP output.

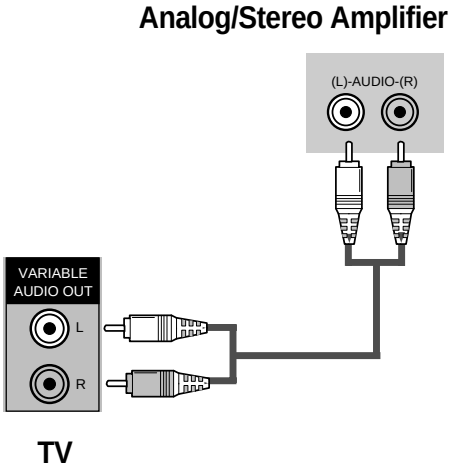


External Stereo

1. Connect analog/stereo amplifier input jacks to variable audio out of the TV.
2. Set up your speakers through your analog stereo amplifier, according to the instructions provided with the amplifier.

Note

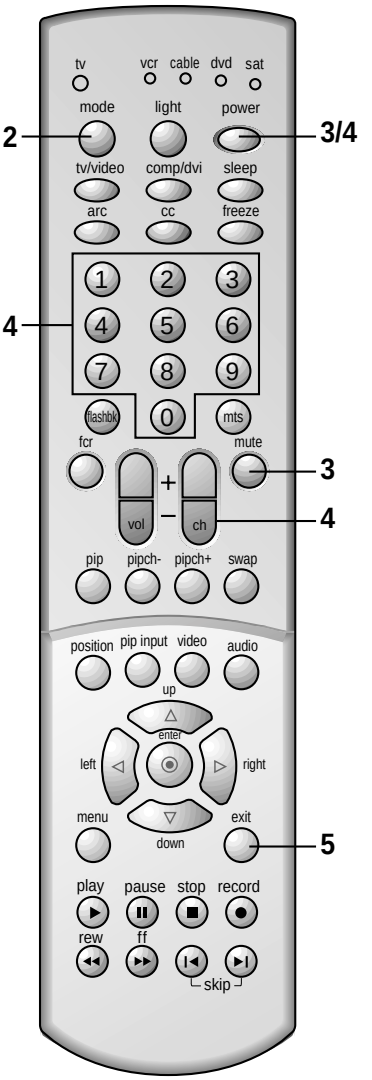
• If you want to hear the sound only through your stereo amplifier, then select the **Speaker** to **Off** (Refer to page 20).



Programming the Remote

The remote control for your HD receiver is a multi-brand or universal remote control. It can be programmed to operate most remote-controllable devices of other manufacturers.

Note that the remote control may not control all models of other brands.



1. Test your remote control.
   To find out whether your remote control can operate the component without programming, turn on the component such as a VCR and press the corresponding mode button (VCR) on the remote control, while pointing at the component. Test the POWER and CH +/- buttons to see if the component responds properly. If not, the remote requires programming to operate the device.

2. Turn on the component to be programmed, then press the corresponding mode button on the remote control.

3. Press the POWER and MUTE buttons simultaneously, the remote control is ready to be programmed for the code.

4. There are two ways to find the right code for the component.

   A. If you press the CH +/- buttons repeatedly, the codes will change one at-a-time. Press the POWER button after each code change. If the right code is found, the device will turn off.

B. Enter a code number using the number buttons on the remote. Programming code numbers for the corresponding component can be found on the following pages. Again, if the code is correct, the device will turn off.

5. Press the EXIT button to store the code.

6. Test the remote control functions to see if the component responds properly. If not, repeat from step 2.

Programming Codes

VCRs

Brand	Codes
AIWA	034
AKAI	016 043 046 124 125 146
AMPRO	072
ANAM	031 033 103
AUDIO DYNAMICS	012 023 039 043
BROKSONIC	035 037 129
CANON	028 031 033
CAPEHART	108
CRAIG	003 040 135
CURTIS MATHES	031 033 041
DAEWOO	005 007 010 064 065 108 110 111 112 116 117 119
DAYTRON	108
DBX	012 023 039 043
DYNATECH	034 053
ELECTROHOME	059
EMERSON	006 017 025 027 029 031 034 035 036 037 046 101 129 131 138 153
FISHER	003 008 009 010
FUNAI	034
GE	031 033 063 072 107 109 144 147
GO VIDEO	132 136
GOLDSTAR	012 013 020 101 106 114 123
HARMAN KARDON	012 045
HITACHI	004 018 026 034 043 063 137 150
INSTANTREPLAY	031 033
JCL	031 033
JCPENNY	012 013 015 033 040 066 101
JENSEN	043
JVC	012 031 033 043 048 050 055 060 130 150 152
KENWOOD	014 034 039 043 047 048
LG	255
LLOYD	034
LXI	003 009 013 014 017 034 101 106
MAGIN	040
MAGNAVOX	031 033 034 041 067 068
MARANTZ	012 031 033 067 069
MARTA	101
MATSUI	027 030
MEI	031 033
MEMOREX	003 010 014 031 033 034 053 072 101 102 134 139
MGA	045 046 059
MINOLTA	013 020
MITSUBISHI	013 020 045 046 049 051 059 061 151
MTC	034 040
MULTITECH	024 034
NEC	012 023 039 043 048
NORDMENDE	043
OPTONICA	053 054
PANASONIC	066 070 074 083 133 140 145
PENTAX	013 020 031 033 063
PHILCO	031 034 067
PHILIPS	031 033 034 054 067 071 101
PILOT	101
PIONEER	013 021 048
PORTLAND	108
PULSAR	072
QUARTZ	011 014
QUASAR	033 066 075 145
RCA	013 020 033 034 040 041 062 063 107 109 140 144 145 147
REALISTIC	003 008 010 014 031 033 034 040 053 054 101
RICO	058
RUNCO	148
SALORA	014
SAMSUNG	032 040 102 104 105 107 109 112 113 115 120 122 125
SANSUI	022 043 048 135
SANYO	003 007 010 014 102 134
SCOTT	017 037 112 129 131
SEARS	003 008 009 010 013 014 017 020 031 042 073 081 101
SHARP	031 054 149
SHINTOM	024
SONY	003 009 031 052 056 057 058 076 077 078 149
SOUNDESIGN	034
STS	013
SYLVANIA	031 033 034 059 067
SYMPHONIC	034
TANDY	010 034
TATUNG	039 043
TEAC	034 039 043
TECHNICS	031 033 070
TEKNIKA	019 031 033 034 101
THOMAS	034
TMK	006
TOSHIBA	008 013 042 047 059 082 112 131
TOTEVISION	040 101
UNITECH	040
VECTOR RESEARCH	012
VICTOR	048
VIDEO CONCEPTS	012 034 046
VIDEOSONIC	040
WARDS	003 013 017 024 031 033 034 040 053 054 131
YAMAHA	012 034 039 043
ZENITH	001 034 048 056 058 072 080 101

SAT

Brand	Codes		
ALPHASTAR DSR	123		
AMPLICA	050		
BIRDVIEW	051	126	129
BSR	053		
CAPETRONICS	053		
CHANNEL MASTER	013	014	015
	018	036	055
CHAPARRAL	008	009	012
	077		
CITOH	054		
CURTIS MATHES	050	145	
DRAKE	005	006	007
	010	011	052
	112	116	141
DX ANTENNA	024	046	056
	076		
ECHOSTAR	038	040	057
	058	093	094
	095	096	097
	098	099	100
	122		
ELECTRO HOME	089		
EUROPLUS	114		
FUJITSU	017	021	022
	027	133	134
GENERAL INSTRUMENT	003	004	016
	029	031	059
	101		

Brand	Codes		
HITACHI	139	140	
HOUSTON TRACKER	033	037	039
	051	057	104
HUGHES	068		
HYTEK	053		
JANIEL	060	147	
JERROLD	061		
KATHREIN	108		
LEGEND	057		
LG	255		
LUTRON	132		
LUXOR	062	144	
MACOM	010	059	063
	064	065	
MEMOREX	057		
NEXTWAVE	028	124	125
NORSAT	069	070	
PACE SKY SATELLITE	143		
PANASONIC	060	142	
PANSAT	121		
PERSONAL CABLE	117		
PHILIPS	071		
PICO	105		
PRESIDENT	019	102	
PRIMESTAR	030	110	111
PROSAT	072		
RCA	066	106	

Brand	Codes		
REALISTIC	043	074	
SAMSUNG	123		
SATELLITE SERVICE CO	028	035	047
	057	085	
SCIENTIFIC ATLANTA	032	138	
SONY	103		
STARCAST	041		
SUPER GUIDE	020	124	125
TEECOM	023	026	075
	087	088	090
	107	130	137
TOSHIBA	002	127	
UNIDEN	016	025	042
	043	044	045
	048	049	078
	079	080	086
	101	135	136
VIEWSTAR	115		
WINEGARD	128	146	
ZENITH	001	081	082
	083	084	091
	120		

DVD

Brand	Codes		
APEX DIGITAL	022		
DENON	020	014	
GE	005	006	
GOLDSTAR	010	016	025
HARMAN KARDON	027		
JVC	012		
LG	001	010	016
	025		
MAGNAVOX	013		

Brand	Codes		
MARANTZ	024		
MITSUBISHI	002		
NAD	023		
ONKYO	008	017	
PANASONIC	003	009	
PHILIPS	013		
PIONEER	004	026	

Brand	Codes		
PROCEED	021		
PROSCAN	005	006	
RCA	005	006	
SAMSUNG	011	015	
SONY	007		
THOMPSON	005	006	
TOSHIBA	019	008	
YAMAHA	009	018	
ZENITH	010	016	025

CATV

Brand	Codes		
ABC	003	004	039
	042	046	052
	053		
ANTRONIK	014		
ARCHER	005	007	014
	024		
CABLE STAR	026		
CENTURION	092		
CENTURY	007		
CITIZEN	007		
COLOUR VOICE	065	090	
COMBANO	080	081	
COMTRONICS	019	030	
DIAMOND	023		
EAGLE	020	030	040
EASTERN	057	062	066
ELECTRICORD	032		
GE	072		
GEMINI	008	022	025
	054		
GI	052	074	
GOLDEN CHANNEL	030		
HAMLIN	049	050	055
HITACHI	052	055	
HOSPITALITY	070	077	
JERROLD	002	003	004
	008	009	010
	052	069	074

Brand	Codes		
LG	255		
M-NET	037		
MACOM	033		
MAGNAVOX	010	012	064
	079		
MEMOREX	001		
MOVIE TIME	028	032	
NSC	015	028	038
	071	073	
OAK	016	031	037
	053		
PANASONIC	044	047	
PARAGON	001		
PHILIPS	006	012	013
	020	065	085
	090		
PIONEER	034	051	052
	063	076	
POST NEWS WEEK	016		
PRUCER	059		
PTS	011	048	071
	072	073	074
PULSAR	001		
RCA	047		
REGAL	049	050	
REGENCY	057		
REMBRANT	025		
RK	091		

Brand	Codes		
SAMSUNG	030	068	
SCIENTIFIC ATLANTA	003	011	041
	042	043	045
	046		
SHERITECH	022		
SIGNAL	030		
SIGNATURE	052		
SL MARX	030		
SPRUCER	047	078	
STARCOM	002	004	008
	009		
STARGATE	008	030	
SYLVANIA	067		
TADIRAN	030		
TANDY	017		
TEXSCAN	029	067	
TOCOM	039	040	056
TOSHIBA	001		
UNIKA	007	014	024
UNITED CABLE	004	053	
UNIVERSAL	007	014	
	024	026	027
	032	035	
VIEWSTAR	012	015	018
	086	087	088
	089		
ZENITH	001	060	093

Product Specifications

Model	C27V36	C32V36
Power requirements	AC 120 V	
Television system	NTSC	
Television channels	VHF : 2 ~ 13, UHF : 14 ~ 69 Cable : 01 ~ 125	
Power consumption	See the back of the TV	
External antenna impedance	75 Ω	
Audio output	10W + 10W	5W + 5W
External input ports	Video input jacks (4 sets) Video output jacks (1 set) S-video input port (2 sets) Component input jacks (2 sets) DVI input jack (1) DVI audio input jacks (1 set) Variable audio output jacks (1 set) Earphone jack (1)	

Maintenance

Early malfunctions can be prevented. Careful and regular cleaning can extend the amount of time you will have with your new TV. Be sure to turn the power off and pull out the plug before you begin any cleaning.

Screen Cleaning

1. Here's a great way to keep the dust off your screen for a while. Wet a soft cloth in a mixture of lukewarm water and a little fabric softener or dish washing detergent. Wring the cloth until it's almost dry, and then use it to wipe the screen.
2. Make sure the excess water is off the screen, and then let it air-dry before you turn on your TV.

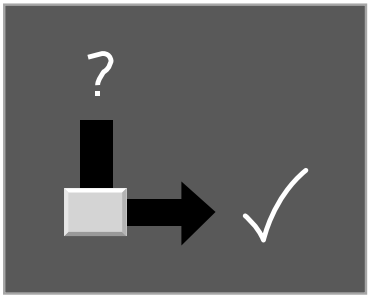
Cabinet Cleaning

1. Use a soft cloth with a mild soap solution to wipe the cabinet.
2. Rinse the cloth and wipe the cabinet again.
3. Let the cabinet air-dry before turning the TV on.

Extended Absence

If you expect to leave your TV dormant for a long time (such as a vacation), unplug the power cord to protect against possible damage from lightning or power surges. If you use an off-air antenna, you may also want to disconnect it from the back of your TV before leaving.

Troubleshooting Checklist



SYMPTOMS

No power

No picture or sound

Poor picture but good sound

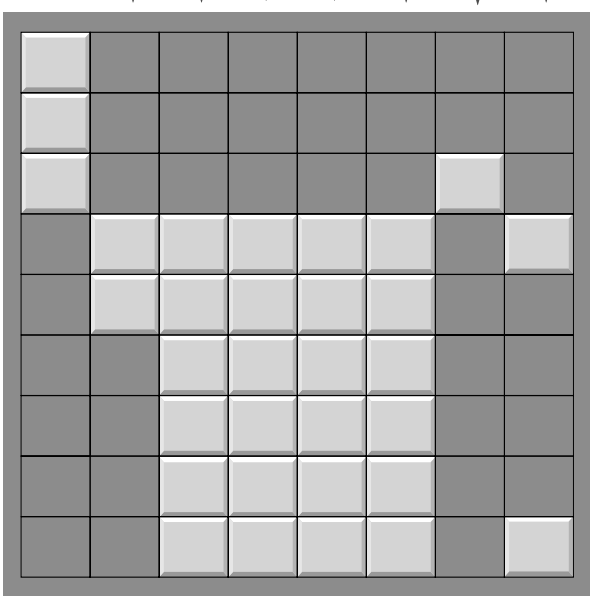
Poor reception

Lines in picture

Ghosts (multiple images)

Remote control does not work.

Cannot tune desired channel.



CHECK THESE THINGS

- Is power cord plugged in?
- Is television turned on?
- Check batteries in remote control.
- Try another channel (station trouble).
- Check antenna connections..
- Check for local interference.
- Adjust the antenna.
- Adjust the picture control.
- Program channel using AUTO PROGRAM.

ZENITH ELECTRONICS CORPORATION
Direct-View TV LIMITED WARRANTY – USA

Zenith will repair or replace your product, at Zenith's option, if it proves to be defective in material or workmanship under normal use, during the warranty period ("Warranty Period") listed below, effective from the date ("Date of Purchase") of original consumer purchase of the product. This warranty is good only to the original purchaser of the product and effective only when used in the United States, excluding U.S.

WARRANTY PERIOD:	**HOW SERVICE IS HANDLED:**
LABOR: 90 days from the Date of Purchase. **PARTS: One Year** from the Date of Purchase. **PICTURE TUBES: 2 Years** from the Date of Purchase. * Parts replaced are warranted for the remaining portion of the original warranty period.	**In-Home Service:** Please retain dealer's dated bill of sale or delivery ticket as evidence of the Date of Purchase for proof of warranty, and submit a copy of the bill of sale to the service person at the time warranty service is provided. **Please call 1-877-9Zenith (1-877-993-6484) to locate your nearest Zenith Authorized Service Center.** Replacement parts may be new or factory remanufactured. Visit our website at **http://www.zenithservice.com**

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THIS LIMITED WARRANTY DOES NOT APPLY TO:

- Damages or operating problems that result from shipping, installation, adjustment of user controls, calibration, maintenance or failure to maintain, or separate system components; and
- Damages or operating problems that result from normal wear and tear, misuse, abuse, operation outside environmental specifications or contrary to the requirements or precautions in the Operating Guide, accident, lightning strikes or other natural causes, unauthorized modification or alteration, incorrect electrical current or voltage, reception problem caused by inadequate home antenna or faulty antenna connections, computer software, institutional or commercial use, or other causes not arising out of defect in material or workmanship.

The cost of repair or replacement under these excluded circumstances shall be borne by the consumer.

CUSTOMER INTERACTIVE CENTER NUMBERS:

For nearest Authorized Service Center, Where to buy, Product Assistance, or Customer Assistance	**Call 1-877-9Zenith (1-877-993-6484) (Monday - Friday, 7 AM - 8 PM CT and Saturday, 8 AM - 5 PM CT) and select an appropriate option from the menu.** Or visit our website at http://www.zenithservice.com

ZENITH ELECTRONICS CORPORATION
2000 MILLBROOK DRIVE
LINCOLNSHIRE, IL 60069

Zenith Part No. 206-03889

P/N : 3828VA0418C (RC032A)